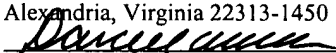


01-18-07.

AF / JEC  
#**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Appl. No.: 10/713,734 Confirmation No.: 2693  
Applicant: Bhogal et al.  
Filed: November 13, 2003  
TC/A.U. 2176  
Examiner: Michael Botts  
Docket No.: AUS920030636US1  
Customer No.: 46129  
Title: METHOD AND SYSTEM FOR SELECTING RULES TO VALIDATE  
INFORMATION SUBMITTED ON AN ELECTRONIC FORM

Honorable Commissioner  
P. O. Box 1450  
Alexandria, Virginia 22313-1450

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Date of Deposit January 16, 2007  
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Alexandria, Virginia 22313-1450  
  
Darcell Walker, Reg. No. 34,945

**FEE TRANSMITTAL OF APPELLANT'S BRIEF**

Applicant files the attached Appeal Brief in support of the Notice of Appeal filed by Applicant on November 13, 2006 in the above-identified application. Please charge the fee of \$500.00 to Deposit Account No. 09-0447. The due date to file the Appeal Brief in support of appeal is January 16, 2007. Therefore the filing of the brief is considered timely filed.

Respectfully submitted,



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January 16, 2007

01/18/2007 CNEGA1 00000041 090447 10713734  
01 FC:1402 500.00 DA


Appeal Brief  
Appl. No.: 10/713,734  
Submitted: January 16, 2007



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Alexandria, Virginia 22313-1450  
  
Darcell Walker, Reg. No. 34,945

**AMENDMENT OF APPELLANT'S BRIEF FILED  
IN RESPONSE TO OFFICE ACTION UNDER 37 C.F.R. § 1.192**

This Appeal Brief filed in support of the previously filed Notice of Appeal, which was filed November 13, 2006, which appealed from the decision of the examiner dated July 13, 2006, rejecting claims 1-10, 12-15, 19 and 23-31. The fee required under 37 C.F.R. § 1.17(c) for filing a brief in support of an appeal is provided in the Transmittal of Appeal Brief filed herewith.

**1. REAL PARTY IN INTEREST**

The real party in interest in this appeal is International Business Machines Corporation (IBM).

**2. RELATED APPEALS AND INTERFERENCES**

With respect to other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in the pending appeal, there are no such appeals or interferences.

**3. STATUS OF CLAIMS**

Claims 1-10, 12-15, 19 and 23-31 are pending in this application; claims 1-10, 12-15, 19 and 23-31 have been finally rejected; claims 1-10, 12-15, 19 and 23-31 are being appealed. Claims 11, 16-18, and 20-22 have been canceled. No claims have been allowed.

**4. STATUS OF AMENDMENTS**

No current amendments are pending.

**5. SUMMARY OF THE CLAIMS**

Claim 1 describes a method for selecting rules from a rules repository to validate information submitted on an electronic form. In this method, the initial step is to create a validation rules repository on a computer (Fig. 3, item 34 and [0033]). At this point, the method waits for a request to connect to the repository. In response to a connection request, the next step is to establish a connection with the created rules repository (Fig. 9, steps 58 and 59 and [0040]). After the connection is established, the next step is to receive a rules request (Fig. 9, step 61 and [0040]). Next the rules request is validated ([0019], [0034], [0040]). The next step is to search the rules repository for a rule that matches the validated rules request (Fig. 10, step 76 and [0043]). As part of the search,

there is a determination of whether there are any rules that match the validation rule description (Fig 10 step 77 and [0043]).

Claim 15 describes a computer-implemented method for creating a repository for rules to validate information submitted on an electronic form. In this method, the first step is to create electronic form validation rules (Fig. 4 and paragraph [0036]). After creating a rule, the next step is to create a record for each identified validation rule, the record containing a plurality of fields with information about the rule and a link to software that performs the validation of that rule on information in an electronic form that incorporates that rule (Fig. 5 and paragraph [0036]). At this point, step (c) creates a set of sub-directories in the rule repository, each sub directory would contain at least two categories of validation rules and a plurality of validation rule types under each rule category (paragraphs [0037] and [0038]). At this point, the record for an identified validation rule and the corresponding software for that validation rule are stored in the rule repository (Fig. 10, step 85 and paragraph [0044]). At this point, the above steps are repeated for each newly created rule (Fig. 10, step 86).

Claim 19 describes a system for selecting rules to validate information submitted on an electronic form. This system has a repository for storing electronic form validation rules. Each validation rule stored in the repository comprises a record containing a description of the requirement that rule enforces and a pointer to the location in repository of software that executes the validation of that rule on an electronic form. The repository also has a set of validation rule sub-directories in which the rules are stored. The directories are based on categories of validation rules (Fig. 3, item 34 and paragraph [0033]). This system has a computing device connected to the validation rules repository (Fig. 3, item 36). The computing device is capable of interfacing with said repository for the purpose of retrieving form validation rules for incorporation into electronic forms ([paragraph 0033]). The system also has a computer network interface connected to the computing device and the validation rules repository for facilitating communication between the repository and the computing device (Fig. 3 and paragraph [0033]).

Claim 23 describes a computer program product in a computer readable storage medium for method for selecting rules from a rules repository to validate information submitted on an electronic form. In this method, the initial instructions create a validation rules repository on a computer (Fig. 3, item 34 and [0033]). At this point, the method waits for a request to connect to the repository. In response to a connection request, the next instructions establish a connection with the created rules repository (Fig. 9, steps 58 and 59 and [0040]). After the connection is established, there are instructions to receive a rules request (Fig. 9, step 61 and [0040]). Next the rules request is validated ([0019], [0034], [0040]). The next instructions search the rules repository for a rule that matches the validated rules request (Fig. 10, step 76 and [0043]). As part of the search, there is a determination of whether there are any rules that match the validation rule description (Fig 10 step 77 and [0043]).

**6. GROUNDS OF REJECTIONS TO BE REVIEWED ON APPEAL**

**6.A. – Was 35 U.S.C. 103(a) properly applied in a rejection of claims 1-10, 12-15, 19 and 23-31 as being unpatentable over Kougiouris et al (US patent application 2004/0039993).**

**7. ARGUMENTS IN SUPPORT OF SEPARATE PATENTABILITY**

7A.

Background of the present invention

The present invention provides a method and system for creating a validation rules repository for electronic form validation rules. These rules would govern the inputting of data into electronic forms. Software instructions that implement these validation rules would be linked to a record in the repository corresponding to each validation rule. During the creation of an electronic form on a web page, the software instructions that execute a rule for a particular data input field on the form would be automatically installed within the web page. This automatic rule installation is a substantial improvement from the current process of manually installing the code for a validation rule each time a form creator desires to use that rule. In addition to incorporating existing validation rules, the present invention provides for the creation of new validation rules and the storage of these newly created rules in the rules repository.

In the method of the present invention, the creator of an electronic form will desire information for a particular field on the form. This field could be for example a zip code field. The person supplying the information would enter his/her zip code in that field. However, the form creator may desire that the zip code be only five digits in length instead of the nine-digit zip codes. Therefore, the form creator desires to have a form validation rule for the zip code that will enforce this five-digit limitation. In the present invention, the form creator would access the rules repository to retrieve a zip code validation rule that limits the zip code to only five numerical digits. Once in the repository, the creator may desire to view the list of available rules. It is possible that there will be multiple zip code rules from which to select. In this case, the creator would select the rule that best achieves the creator's desires.

Instead of viewing a list of validation rules, another alternative approach could be for the form creator to enter a description of the rule that the creator wants to implement. With either approach, there is an identification of the specific rule desired for the information in that particular field on the form. Software code (instructions) that executes the desired rule is retrieved from a storage location pointed to by information in the pointer field of the selected rule. After the retrieval of the software code, there is an identification of the field in the electronic form for which the selected rule will validate submitted information.

In the event that the form creator does not find a desired validation rule in the repository, the present invention provides mechanisms to create new validation rules and store these newly created rules in the rules repository. Figure 10, steps and 82 and paragraph [0043] illustrate and describe the method of the present invention that provides for the creation of new rules when a search of the repository fails to find a described or appropriate rule. After the creation of a new validation rule, steps 83, 84 and 85 provide for the storing of a newly created rule in the rules repository.

Background of Kougiouris et al. (US patent application publication 2004/0039993 A1)

Kougiouris describes a system and method for automatically performing validation and/or formatting procedures for a graphical user interface (GUI) described in a markup language file are disclosed. The graphical user interface markup language description may comprise descriptions of various types of graphical user interface elements for which text is to be validated/formatted, such as form fields, tables, hypertext links, etc. An author of a markup language file may include various custom markup language attributes in order to automatically validate/format text for a GUI element, for example by adding a custom HSFORMAT="usssn" attribute to a GUI element description to indicate that the element should be automatically validated/formatted according to a U.S. social security number pattern. Any of various codes or patterns may be supported in a particular embodiment, and an extensible framework enabling support for new types of codes or patterns to be easily "plugged in" may be utilized, as described below. The validation/formatting procedures may be managed by an executable component referred to as a "validation/formatting manager component". The manager

component may be automatically instantiated when the application parses the markup language file. The validation/formatting manager component is operable to perform validation/formatting for GUI elements, based on the custom markup language attributes. The manager component may determine these attributes by traversing a document object describing the markup language GUI elements and attributes. The manager component interfaces with the application to receive programmatic events, which trigger various types of formatting/validating operations to be performed on the GUI elements.

#### Analysis of the Examiner's rejections

The examiner's assertion was that Kougiouris teaches the elements of claims (claim 1) but does not expressly teach the step of sending a query to the user to create a new rule when no rule matches the validation rule description. The examiner asserts that paragraph [0020] of Kougiouris teaches that if the input is invalid, the manager component may re-set the form GUI element to use the new formatted input. The examiner further states that Kougiouris teaches to automatically update the rule, whereas the claimed invention specifies to query the user first.

The examiner also asserts that Kougiouris teaches the step of creating a set of sub-directories in the rule repository with each directory having at least two categories of validation rules and a plurality of validation rule types under each rule category.

The issue is whether the method of Kougiouris describes a method of selecting rules from a rules repository to validate information submitted on an electronic form such that the steps of the present invention are obvious. In particular, does the description in Kougiouris make the present invention obvious. Further does the description in Kougiouris make the step of "sending a query to the user to create a new rule when no rules matches the validation rule description obvious?

In another issue, with regard to claims 15 and 19 is whether the Kougiouris description make obvious the step of: "creating a set of sub-directories in the rule repository, each sub directory would contain at least two categories of validation rules and a plurality of validation rule types under each rule category"? In both of the above-



mentioned issues, the locations in Kougiouris cited by the examiner do not teach or suggest the claimed steps of the present invention.

To establish a *prima facie* case of obviousness, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings (MPEP 706.02(j)).

Applicants' assertion is that Kougiouris does not teach, suggest or motivate one of ordinary skill in the art to conceive Applicants' present invention. As mentioned, Applicants' invention provides a method to first search the rules repository for a desired rule. If the search does not produce or find an appropriate rule, a user is queried to determine if the user desires to create a form validation rule. The user can then create a new form validation rule that specifically meets the needs of the user. In addition, the present invention queries the user in step 84 of Figure 10 whether to store the newly created rule in the repository. Step 85 will then store the newly created rule in the repository when the user indicates a desire to store the rule.

As previously mentioned, examiner asserts that paragraph [0020] of Kougiouris teaches that if the input is invalid, the manager component may re-set the form GUI element to use the new formatted input. The examiner further states that Kougiouris teaches to automatically update the rule, whereas the claimed invention specifies to query the user first.

Regarding the first point of the Examiner's assertion, when an invalid input is received, Kougiouris does reset to input field in order to give the user the opportunity to re-input the information. This approach is likely to address the case when the user incorrectly inputs information resulting in the failure to find a requested validation rule. Therefore in Kougiouris, when a search does not produce a requested rule the solution is to get the user to resubmit the request. The assumption of the Kougiouris method is that the user made an error or mistake in the submission of data. In paragraph [0072] of Kougiouris, there is some discussion of enabling and using new validation/formatting components. However, this implementation does not address the creation of new validation rules.

With regard to the second point that Kougiouris teaches to automatically update the rule, this description is not taught or suggested anywhere in the cited reference. Kougiouris automatically validates the input data using the validation rules, but as previously mentioned, there is provision to allow a user to create a new form validation rule and then store that rule in the validation rules repository.

In order to sustain a prima facie case of obviousness there must be a suggestion or teaching to modify (combine) the references. If there is no teaching, there is no prima facie case for obviousness. Applicants provide a method for creating and storing new form validation rules that is not taught or suggested in Kougiouris. Therefore, Applicants submit that there is no support to sustain a prima facie obviousness rejection of the claims in Applicants' present invention.

In addition, Applicants submit that there can be no prima facie case obviousness in the present invention because Kougiouris teaches away from the method of the present invention. As mentioned, Kougiouris' solution to an unsuccessful search of the rules repository is to reset the form and have the user resubmit the information. In Applicants' present invention when there is no match (figure 10, step 77), the user has the option to create a new rule. Kougiouris does not provide the option for a user to create new validation rules.

**8. CONCLUSION**

Applicants submit that all of the pending claims are in condition for allowance. Applicants further submit that the amendments as discussed with the Examiner were for the purpose of further defining the impersonator programs of the present invention. Applicants believe that no additional search should be required in view of the type of amendments Applicants made to the claims. Therefore, withdrawal of the rejections and passage to issuance is respectfully requested. In view of the above arguments, it is respectfully urged that the rejection of the claims should not be sustained.

Respectfully Submitted,



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January 16, 2007

Claim 1 (Currently amended) A computer implemented method for selecting rules from a rules repository to validate information submitted on an electronic form comprising the steps of:

- a) creating a validation rules repository on a computer;
- b) in response to receiving a connection request, establishing a connection with the created rules repository;
- c) receiving a rule request;
- d) receiving a validation rule description;
- ~~e) d)~~ e) searching the rules repository for rules matching the rule description;
- ~~f) e)~~ f) determining whether there are any rules that match the validation rule description;
- ~~g) f)~~ g) sending a query to the user to create a new rule when no rule matches the validation rule description and storing the created rule in the rules repository; and
- ~~h) g)~~ h) retrieving the selected rule from the rules repository for incorporation into the electronic form.

Claim 2 (Currently amended) The method as described in claim 1 further comprising before said retrieving step ~~(h)~~ ~~(g)~~ the step of displaying at least one rule from the rules repository in response to a rule request.

Claim 3 (Original) The method as described in claim 2 wherein said step (a) further comprises establishing a plurality of categories of rules and storing the rules in the plurality of categories according to rule type.

Claim 4 (Original) The method as described in claim 3 wherein rule categories comprise alphabet and number categories.

Claim 5 (Original) The method as described in claim 3 wherein rule types comprise name, zip code, telephone number, city, state and address, and credit card number.

Claim 6 (Original) The method as described in claim 3 wherein said displaying step further comprises displaying a category of validation rules.

Claim 7 (Original) The method as described in claim 6 further comprising before said displaying step, the step of receiving the rule request containing an identification of a specific validation rules category.

Claim 8 (Original) The method as described in claim 7 wherein said displaying step further comprises displaying only rules from the identified validation rules category.

Claim 9 (Original) The method as described in claim 8 wherein said rule retrieval step further comprises receiving an identification of a rule in the specific validation rules category and retrieving the identified rule from the rules repository.

Claim 10 (Currently amended) The method as described in claim 1 wherein said step (h) ~~(g)~~ further comprises the steps of: receiving a description of a desired rule; displaying all rules matching the rule description; and retrieving a rule selected from the displayed rules matching the rule description.

Claim 11 (Canceled)

Claim 12 (Previously presented) The method as described in claim 1 further comprising the step of storing the newly created rule in the rule repository.

Claim 13 (Currently amended) The method as described in claim 1 further comprising after said step (h) ~~(g)~~, the step of incorporating the retrieved rule into the electronic form.

Claim 14 (Original) The method as described in claim 13 wherein said incorporating step further comprises: identifying a field in the electronic form; attaching the selected rule to the identified form field; and retrieving validation software for the attached rule.

Claim 15 (Previously presented) A computer implemented method for creating a repository for rules to validate information submitted on an electronic form comprising the steps of:

- (a) creating electronic form validation rules;
- (b) creating a record for each identified validation rule, the record containing a plurality of fields with information about the rule and a link to software that performs the validation of that rule on information in an electronic form that incorporates that rule;
- (c) creating a set of sub-directories in the rule repository, each sub directory would contain at least two categories of validation rules and a plurality of validation rule types under each rule category;
- (d) storing the record for an identified validation rule and the corresponding software for that validation rule in the rule repository; and
- (e) repeating the above steps for each newly created rule.

Claim 16 (canceled)

Claim 17 (canceled)

Claim 18 (canceled)

Claim 19 (Previously presented) A system for selecting rules to validate information submitted on an electronic form comprising:

(a) a repository for storing electronic form validation rules, each validation rule stored in the repository comprises a record containing a description of the requirement that rule enforces and a pointer to the location in repository of software that executes the validation of that rule on an electronic form, said repository further having a set validation rule sub-directories in which the rules are stored, said directories being based on categories of validation rules;

(b) a computing device connected to said validation rules repository, said computing device capable of interfacing with said repository for the purpose of retrieving form validation rules for incorporation into electronic forms; and

(c) a computer network interface connected to said computing device and said validation rules repository for facilitating communication between said repository and said computing device.

Claim 20 (Canceled)

Claim 21 (Canceled)

Claim 22 (Canceled)

Claim 23 (Currently amended) A computer program product in a computer readable storage medium for selecting rules from a rules repository to validate information submitted on an electronic form comprising the steps of:

- a) instructions for creating a validation rules repository on a computer;
- b) in response to receiving a connection request, instructions for establishing a connection with the created rules repository;
- c) instructions for receiving a rule request;
- d) instructions for receiving a validation rule description;
- e) ~~d)~~ instructions for searching the rules repository for rules matching the rule description;
- f) ~~e)~~ instructions for determining whether there are any rules that match the validation rule description;
- g) ~~f)~~ instructions for sending a query to the user to create a new rule when no rule matches the validation rule description and storing the created rule in the rules repository; and
- h) ~~g)~~ instructions for retrieving the selected rule from the rules repository for incorporation into the electronic form.

Claim 24 (Currently amended) The computer program product as described in claim 23 further comprising before said retrieving instructions (h) ~~(g)~~, instructions for displaying at least one rule from the rules repository in response to a rule request.

Claim 25 (Original) The computer program product as described in claim 24 wherein said instructions (a) further comprise instructions for establishing a plurality of categories of rules and instructions for storing the rules in the plurality of categories according to rule type.



Claim 26 (Original) The computer program product as described in claim 23 wherein said displaying instructions further comprise instructions for displaying a category of validation rules.

Claim 27 (Original) The computer program product as described in claim 26 further comprising before said displaying instructions, instructions for receiving the rule request containing an identification of a specific validation rules category.

Claim 28 (Currently amended) The computer program product as described in claim 23 wherein said retrieving instructions (h) ~~(g)~~ further comprise: instructions for receiving a description of a desired rule, the description containing the rule category; instructions for searching the repository for rules matching the rule description; instructions for displaying all rules matching the rule description; and instructions for retrieving a rule selected from the displayed rules matching the rule description.

Claim 29 (Currently amended) The computer program product as described in claim 23 further comprising before said retrieving instructions (h) ~~(g)~~: instructions for receiving a validation rule descriptor; instructions for searching the rules repository for rules matching the rule description; instructions for determining whether there are any rules that match the validation rule description; instructions sending a query to the user to create a new rule when no rule matches the validation rule descriptor; and instructions retrieving a newly created rule.

Claim 30 (Currently amended) The computer program product as described in claim 23 further comprising after said retrieving instructions (h) ~~(g)~~, instructions for incorporating the retrieved rule into the electronic form.

Claim 31 (Original) The computer program product as described in claim 30 wherein said incorporating instructions further comprise: instructions for identifying a field in the electronic form; instructions for attaching the selected rule to the identified form field; and instructions for retrieving validation software for the attached rule.

## **EVIDENCE APPENDIX**

In accordance with 37 CFR 41.37, submitted herein evidence entered by the examiner and relied upon by appellant in the appeal. The examiner in an office letter dated July 13, 2006 entered the evidence. The evidence includes:

Kougiouris et al. (US patent application publication 2004/0039993 A1)

**RELATED PROCEEDINGS APPENDIX**

There are no related proceedings for this appeal.